

In the Specification

Please change paragraph 0001 on page 1 as shown below:

[0001] This application claims the benefit of our Provisional U.S. Patent Application No. 60/264,611 ~~of the same title~~ filed January 27, 2001.

Please change the term "Xanthan" to "xanthan" as specified in the following paragraphs, namely, in lines 17, 19 and 21 of page 2; 14, 18, and 20 of page 3; line 17 of page 4; line 4 of page 6; lines 6, 13, and 19 of page 10 (claims 1, 5, and 7); this change, from Xanthan to xanthan, appears in claims 13, 14, and 15, in the separate claims sheets. The following paragraphs also include corrected spellings of "nitrilopropionamide," in page 7, at lines 3, 4, 5, and 7; this change is also effected in claims 3 and 16 in the separate claims sheets.

As requested above, specifically, please change paragraph [0005] as follows, to reflect three instances of the use of the lower case "x" in the word "xanthan." In the original text, the upper case "Xanthan" appears in lines 17, 19, and 21 of page 2.

[0005] Xanthate gum has been proposed for use as a thixotropic suspending agent for suspensions of 2,2-dibromo-3-nitrilopropionamide (DBNPA) by Gartner in US Patent 5,627,135. However, Miskiel and Solanki, in US Patent 6,083,890, have shown that acidic cleaning compositions containing ~~Xanthan~~ xanthan gum and a preservative (5-bromo-5-nitro-1,3-dioxane) rapidly lose viscosity, while a low-acetate ~~Xanthan~~ xanthan gum maintained the viscosity stability or even increased it. See Table 1 of US Patent 6,083,890. The natural ~~Xanthan~~ xanthan gum, containing at least 5% acetic acid groups, typically 5.6% by weight, itself degrades in an acidic environment. As reviewed by Miskiel and Solanki column 3, lines 33-47, "Although xanthan gum is well known as a rheology modifier in cleansers, characteristically the viscosity decreases undesirably over time at low pH, within about seven days after making the compositions. The extent to which the viscosity decreases is dependent on a number of factors, such as the pH and ionic strength of the cleaner and the pH levels, and the temperature of the acidic cleaner composition at which it is stored. In compositions stored at ambient temperature, xanthan gum loses a significant proportion, perhaps greater than about 20% or more, of its viscosifying functionality within an acidic composition in about seven days at a pH of about 2.2 or less. This may eventually lead to product performance disappointment and failure unless an increased concentration of xanthan gum is initially used to compensate for the decrease in viscosity."

Please change paragraph [0006] also as follows to reflect the use of the lower case x in xanthan; in the original text, "Xanthan" appears in lines 14, 18, and 20 of page 3.

[0006] The difficulty of creating a stable suspension of a haloacetamide with ~~Xanthan~~ xanthan gum is compounded by the fact, as mentioned above, that the haloacetamides tend to hydrolyze in water and especially so at higher pH's. Thus the desirability of a low pH to preserve the haloacetamide conflicts with the adverse effects of a low pH on a suspending agent such as natural ~~Xanthan~~ xanthan gum. Nevertheless, Gartner, in US Patent 5,627,135, recommends reducing the pH of the water to below 7 before adding the natural ~~Xanthan~~ xanthan and says that "the pH of the formulation will usually equilibrate to about 1 to about 4 and no further acidification is needed." Col 5 lines 34-51. His Table 1, however, contains no examples using xanthan gum alone as the suspending agent.

Please change "Xanthan" to "xanthan" in line 17 of page 4 -- that is, in paragraph [0009], as follows:

[0009] To suspend the formulations, an acetate-free ~~Xanthan~~ xanthan gum is used in a concentration ranging from 0.1% to 5%, anchoring the pH between 1 and 5 with a buffer comprising sodium acetate and acetic acid in a weight ratio of 1.5:1 to 2.5:1, in an amount effective to maintain the pH between 1 and 5 for a desired period of stability.

Please also change "Xanthan" to "xanthan" in line 4 of page 6 -- that is, in paragraph [0011], as follows:

[0011] Thus our invention includes a stable liquid formulation of a haloacetamide comprising, in water, at least 5% by weight haloacetamide (preferably 5% to 60%, more preferably 10% to 45% and most preferably 15% to 25% by weight), 0.1% to 5% by weight (preferably 0.5% to 4%) of an acetate-free ~~Xanthan~~ xanthan gum suspending agent, and acetic acid, sodium acetate or a mixture thereof as a buffering agent effective to maintain the suspension at a pH between 1 and 5, preferably between 3.8 and 4.2. Typically, an effective amount of buffering agent will comprise 1-2% sodium acetate and 0.5-1% acetic acid, preferably in a weight ratio of 1.5:1 to 2.5:1. Our invention includes a method of making the suspension, comprising forming an aqueous solution of 0.1% to 5% by weight of an acetate-free xanthan gum, adding the buffer, and then adding the haloacetamide in the proportions desired to make a composition as described above. The buffer is added not merely to reduce the initial pH (cf Gartner US Patent 5,627,135 col 5 lines 34-50) but to maintain it over a period of time to inhibit hydrolysis of the DBNPA.

Referring to the original specification, please mark the paragraph beginning at line 18 of page 6 as paragraph [0012], add a period in line 6 of original page 7, and change the spelling of the term "nitrilpropionamide" to "nitrilopropionamide" at the places indicated below, namely lines 3, 4, 5, and 7 of original page 7:

[0012] Our invention is applicable to any of the halogenated amides recited in Burk et al US Patent 4,163,798, which is incorporated herein by reference in its entirety. In particular, the halogenated amides useful in our invention are alpha-haloamides; that is, compounds which contain an amide functionality [ie a moiety of the formula $-C(O)-N<$] and which have at least one halogen atom on a carbon atom located adjacent to (that is, in the alpha position relative to) the carbonyl group $[-C(O)-]$ of such amide functionality. Preferably, they are halogenated nitrilopropionamides. Examples of the preferred group are 2,2 dibromo 3-nitrilopropionamide ("DBNPA"), 2-bromo-2-cyano-N,N-dimethylacetamide, 2-bromo ~~3-nitrilopropionamide~~ 3-nitrilopropionamide, 2-bromo ~~2,3-dinitrilopropionamide~~ 2,3-dinitrilopropionamide, ~~N,N-dimethyl-2,2-dibromo-3-nitrilopropionamide~~ N,N-dimethyl-2,2-dibromo-3-nitrilopropionamide, and N-(n-propyl)-2-iodo-2bromo-3-nitrilopropionamide. A most preferred haloacetamide is 2,2 dibromo 3-nitrilopropionamide ~~3-nitrilopropionamide~~ ("DBNPA"). A preferred buffering agent comprises sodium acetate and acetic acid, preferably in a molar ratio of 1.5:1 to 2.5: 1, and more preferably about 2:1.